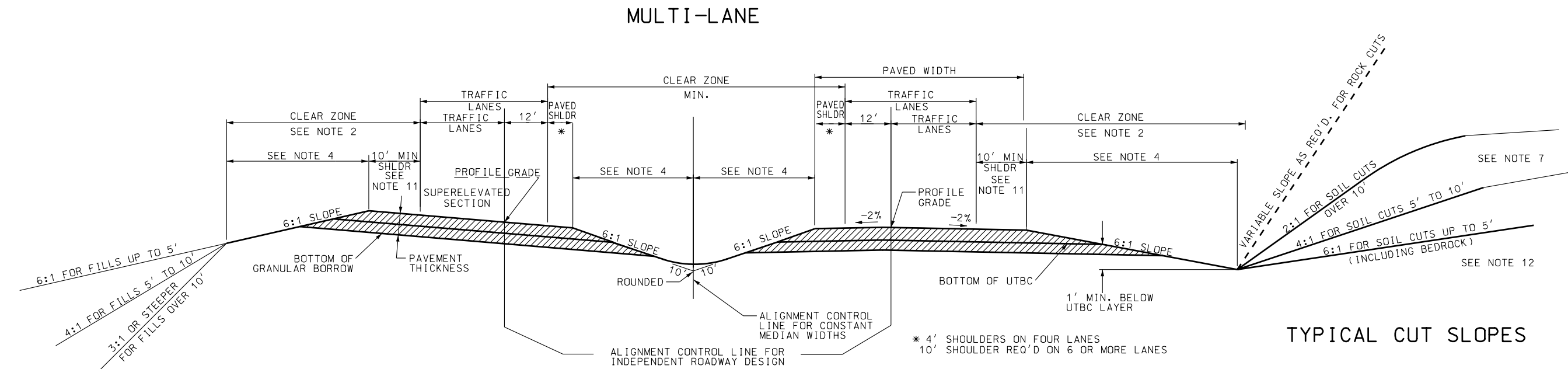


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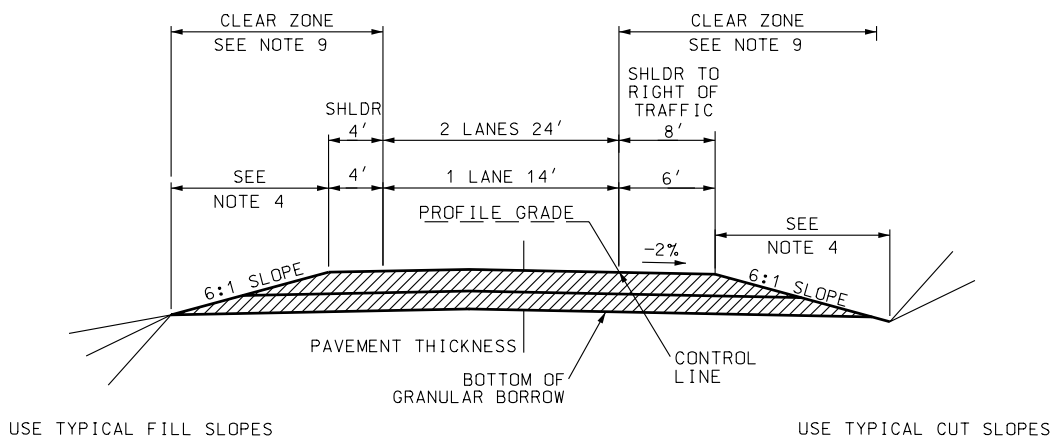


**TYPICAL FILL SLOPES**

**TYPICAL SECTION ON CURVE**

**TYPICAL SECTION ON TANGENT**

**TYPICAL CUT SLOPES**



**NOTES:**

1. USE THE CURRENT EDITION OF AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS FOR DESIGN OF ROADWAY ELEMENTS.
2. USE THE CURRENT EDITION OF AASHTO ROADSIDE DESIGN GUIDE FOR CLEAR ZONE REQUIREMENTS. CLEAR ZONE MAY EXTEND INTO CUT OR FILL SLOPES.
3. STANDARDS SHOWN ARE RECOMMENDED VALUES. EXCEED STANDARDS IF CONDITIONS PERMIT.
4. IN FILL CONDITIONS MAINTAIN A CONSTANT SLOPE FROM THE EDGE OF THE PAVEMENT TO THE OUTER EDGE OF THE CLEAR ZONE. IN CUT CONDITIONS MAINTAIN A CONSTANT SLOPE FROM THE EDGE OF THE PAVEMENT TO THE BOTTOM OF THE GRANULAR BORROW LAYER OR PROVIDE OTHER MEASURES TO DRAIN ALL PAVEMENT THICKNESS LAYERS. MAINTAIN A MINIMUM OF ONE FOOT VERTICAL DISTANCE FROM THE BOTTOM OF THE UTBC LAYER TO THE BOTTOM OF THE CUT DITCH. THERE MAY BE CUT FORESLOPES AND BACKSLOPES IN THE CLEAR ZONE.
5. TRANSITION FROM FLAT TO STEEPER CUT AND FILL SLOPES IN SUFFICIENT DISTANCE TO PROVIDE A NATURAL PLEASING APPEARANCE.
6. PAVEMENT THICKNESS CONSISTS OF HARD SURFACING, UTBC AND GRANULAR BORROW (IF USED).
7. INSTALL SURFACE DITCH (OPTIONAL) WHEN SHEET FLOW DRAINAGE IS TOWARDS CUT SLOPE. DRAIN SURFACE DITCH TO NATURAL DRAINAGE OR ROADSIDE DITCH. PROVIDE OTHER MEASURES TO PREVENT ERODING CUT SLOPES IF SURFACE DITCH IS OMITTED. SEE STD DWG DD 2 FOR DETAILS.
8. SEE STD DWG DD 2 FOR TYPICAL SECTION ON DITCH FLARING AND BENCHED SLOPE.
9. DESIGN SPEED CHANGES THROUGHOUT LENGTH OF RAMP. USE APPLICABLE CLEAR ZONE.
10. USE A 12' MINIMUM OUTSIDE SHOULDER WHEN HEAVY TRUCK TRAFFIC EXCEEDS 250 DDHV.
11. RANGE OF SUPERELEVATION IS THE PAVED WIDTH.
12. THE SLOPES SHOWN FOR CUT AND FILL HEIGHTS ARE SUGGESTED VALUES. SLOPES MAY DEViate FROM THESE SUGGESTED VALUES TO MEET PROJECT SPECIFIC REQUIREMENTS.

UTAH DEPARTMENT OF TRANSPORTATION  
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION  
SALT LAKE CITY, UTAH

GEOMETRIC DESIGN  
FOR FREEWAYS  
(ROADWAY)

STD DWG  
DD 4

RECOMMENDED FOR APPROVAL

CHAIRMAN STANDARDS COMMITTEE  
APPROVED

STANDARD DRAWING TITLE

DEC. 18, 2003

DATE

DEC. 18, 2003

DATE

DEPUTY DIRECTOR

REMARKS

REVISIONS

1 12/18/03 S.O. MULTI-LANE DETAIL MODIFIED NOTES UPDATED